gateway with a highest ranking from said plurality of gateways, and attempts to route the call over the selected gateway.

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~~40.~~ 6 (Amended) The method of claim ~~31~~ 1, further comprising:

matching the predefined call service by accessing a gateway registration scheme.

REMARKS

In the Office Action, the Examiner rejected claims 31-40 under 35 U.S.C. § 103(a) as unpatentable over Turock (U.S. Patent No. 6,243,373) in view of Kenner et al. (U.S. Patent No. 6,003,030) and Gawlick et al. (U.S. Patent No. 6,175,870).

By this Amendment, Applicant amends claims 31-35 and 40 to improve form. Claims 31-35 and 40 have not been narrowed by these amendments. Applicant respectfully traverses the Examiner's rejections. Claims 31-40 remain pending.

The Examiner rejected claims 31-40 under 35 U.S.C. § 103 as allegedly unpatentable over Turock in view of Kenner et al. and Gawlick et al. The Examiner alleged that Turock discloses logic that transmits a query message that includes a call type of service to a directory service to obtain a plurality of gateways that match the predefined call service criteria, ranks the selected gateways according to least cost routing, selects a shortest path gateway for placing a telephone call, and selects a next one if the shortest one is not available (Office Action, page 3).

The Examiner admitted that Turock does not disclose transmitting a message to each of a plurality of gateways by using a trace route, ranking the plurality of gateways according to the result of the trace route message (Office Action, page 3). The Examiner relied upon Kenner et

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al. for allegedly disclosing a communication system that queries a database to obtain a list of servers, sends a trace route message to each of the servers, and prioritizes the servers according to the test results, and selects a highest priority "shortest hop" to transmit a message (Office Action, page 3). The Examiner relied upon Gawlick et al. for allegedly disclosing a communication system for routing a call on the highest ranked path (Office Action, page 3). Applicant respectfully disagrees with the Examiner's interpretation of these references and traverses the rejection set forth by the Examiner.

Turock discloses a system for communicating audio information over a computer network (col. 5, lines 20-21). Turock discloses that a call is routed to a central office switching system connected to the public switched telephone network (PSTN) (col. 5, lines 30-32). When the connection to the access port is established, a specialized computer system at the access port establishes a two-way communications link via the computer network to a corresponding specialized computer system at an access port in the vicinity of the called party (col. 5, lines 32-43).

Kenner et al. discloses an intelligent mirroring system that is used to determine the need for and distribution of mirror sites and direct user requests for certain Web content to an optimum mirror site (col. 5, lines 14-17).

Gawlick et al. discloses a system that determines the cost of routing a requested virtual circuit on links in a path through a network that includes a set of links based on parameters related to the number of hops in a subset of the set of all virtual circuits previously established in the network (col. 4, lines 56-61).

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By contrast, the present invention recited in claim 31, for example, includes a combination of features of a method for selecting a gateway proximal to a network access point that satisfies a predefined call service on a hybrid network, where the hybrid network includes a circuit switched network, a packet switched network, and a directory service to route a call. The method includes transmitting a query including a type of call service to the directory service to identify a plurality of gateways between the packet switched network and circuit switched network that match the predefined call service criteria; sending a message to each of the plurality of gateways to obtain a trace route; and ranking the plurality of gateways based on the trace route of each of the plurality of gateways. The method also includes translating an identifier of a destination of the call from a listing of telephone numbers and associated internet protocol addresses in the directory service. The method further includes selecting a gateway with a highest ranking from the plurality of gateways; and attempting to route the call over the selected gateway.

Neither Turock, Kenner et al., nor Gawlick et al., whether taken alone or in any reasonable combination, discloses or suggests this claimed combination. For example, none of the references discloses transmitting a query including a type of call service to a directory service to identify a plurality of gateways between the packet switched network and circuit switched network that match the predefined call service criteria, as recited in claim 31. The Examiner alleged that Turock discloses these features and cited column 9, lines 1-25, of Turock for support (Office Action, page 3). Applicant disagrees.

At column 9, lines 1-25, Turock discloses:

> Internet Call Manager 506 then passes this information to Connection Initiation Module (CIM) 510, which in turn establishes a data connection over Internet 214 and negotiates

> the various call setup and establishment parameters. Once the Internet data call is established by CIM 510, the data stream for the voice call is passed through an appropriate Ethernet interface 512 for transmission to Internet 214.
>
> In order to establish the call, CIM 510 communicates with a Call Acceptance Module (CAM) 556 associated with the Remote ITS Node at the receiving end. During this call negotiation and set up phase, CIM 510 and CAM 556 exchange parameters such as the destination telephone number to be dialed, and whether or not the packetized voice data stream is to be filtered through the Voice Compander Module (discussed below) and/or the Line Quality Module (discussed below) before being transmitted over Internet 214. In addition, the particular protocol used for the data transmission between ITS Node 206 and ITS Node 216 is established. The data transmission protocol is typically either TCP/IP or UDP/IP, since these are the primary protocols supported by Internet 214. Once the initial call setup parameters have been exchanged between ITS Nodes 206 and 216, ICM 506 waits for an indication from Remote ITS Node 216 that the destination telephone number has been dialed by Remote ITS Node 216.

Nowhere in this section, or elsewhere, does Turock disclose transmitting a query that includes a type of call service to a directory service to identify a plurality of gateways between the packet switched network and the circuit switched network that match the predefined call service criteria, as recited in claim 31. The Examiner equated Least Cost Routing (LCR) module 514 of Turock with the claimed directory service (Office Action, page 3). Nowhere in the section cited by the Examiner, or elsewhere, does Turock mention that the LCR module receives a query that includes a type of call service, as recited in claim 31. The disclosures of Kenner et al. and Gawlick et al. provide nothing to cure this deficiency in the disclosure of Turock.

Further, none of the references, whether taken alone or in any reasonable combination, discloses ranking a plurality of gateways based on the trace route of each of the plurality of gateways, as also recited in claim 31. The Examiner alleged that Turock discloses ranking gateways according to least cost routing (Office Action, page 3). The Examiner admitted that Turock does not disclose ranking gateways according to a result of a trace route (Office Action,

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page 3). The Examiner relied upon Kenner et al. for allegedly disclosing this feature (Office Action, page 3). Applicant disagrees.

Kenner et al. discloses that a trace route is used to document the path of information transmission between a user terminal and a remote server (col. 9, line 66 - col. 10, line 4). Kenner et al. discloses that several traces with differing results might indicate that the stability of the route from a particular user to a specific server is not acceptable (col. 10, lines 4-6). Kenner et al. further discloses that the trace route information is used to correlate test data to information in a database, so that bad network links and servers can be identified (col. 11, lines 20-22). Contrary to the Examiner's assertions, however, Kenner et al. does not disclose ranking gateways based on the trace route of each of the gateways, as recited in claim 31. Therefore, even if the disclosure of Kenner et al. was combined with the disclosure of Turock, this feature recited in claim 31 would not result. The disclosure of Gawlick et al. provides nothing to cure these deficiencies in the disclosures of Turock and Kenner et al.

Because neither Turock, Kenner et al., nor Gawlick et al., whether taken alone or in any reasonable combination, discloses or suggests ranking gateways based on the trace route of each of the gateways, none of these references can be relied upon for disclosing selecting a gateway with a highest ranking from the gateways or attempting to route the call over the selected gateway, as further recited in claim 31. The Examiner alleged that Turock discloses "selecting a shortest path gateway for placing a telephone call" (Office Action, page 3). The Examiner seemingly equates the selecting of a shortest path gateway with the claimed selecting of a gateway with a highest ranking. Applicant submits that Turock not only does not disclose

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selecting a shortest path gateway, but also does not disclose selecting a gateway with a highest ranking.

The Examiner apparently believes that Turock discloses finding a shortest path through a network, thus finding a "shortest path gateway." This is not true, however. Instead, Turock discloses a Least Cost Routing module that "locate[s] the ITS Node that can route the call at the receiving end in the most cost efficient manner" (col. 9, lines 27-30). In other words, Turock attempts to find an ITS Node close to the location of the called party (col. 9, lines 30-48), without regard to the path taken to get to that ITS Node. Therefore, the Examiner's interpretation of the Turock reference is flawed.

For at least these reasons, Applicant submits that claim 31 is patentable over Turock, Kenner et al., and Gawlick et al., whether taken alone or in any reasonable combination. Claims 32-34, 39, and 40 depend from claim 31 and are, therefore, patentable over Turock, Kenner et al., and Gawlick et al. for at least the reasons given with regard to claim 31. Claims 32-34, 39, and 40 are also patentable for reasons of their own.

For example, claim 33 recites, among other things, ranking all of the plurality of gateways that are accessible without traveling through any intervening router in order of lowest latency, if more than one of the plurality of gateways are accessible without traveling through any intervening router. Neither Turock, Kenner et al., nor Gawlick et al. discloses or suggests these features. The Examiner did not address these features and, therefore, did not properly establish a prima facie case of obviousness with regard to claim 33. For at least these additional reasons, Applicant submits that claim 33 is patentable over Turock, Kenner et al., and Gawlick et al.

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Independent claim 35 recites features similar to the features described above with regard to claim 31. Claim 35 is, therefore, patentable over Turock, Kenner et al., and Gawlick et al., whether taken alone or in any reasonable combination, for reasons similar to those given with regard to claim 31. Claims 36-38 depend from claim 35 and are, therefore, patentable over Turock, Kenner et al., and Gawlick et al. for at least the reasons given with regard to claim 35.

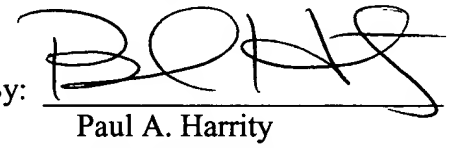
In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of pending claims 31-40.

If the Examiner does not believe that all pending claims are now in condition for allowance, the Examiner is urged to contact the undersigned to expedite prosecution of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 13-2491 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

By: 

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VERSION WITH MARKINGS TO SHOW CHANGES

IN THE CLAIMS:

The claims have been amended as follows:

31. (Amended) A method for selecting a gateway proximal to a network access point that satisfies a predefined call service on a hybrid network, wherein the hybrid network includes a circuit switched network, a packet switched network and a directory service to route a call, comprising [the steps of]:

transmitting a query including a type of call service to the directory service to [obtain] identify a plurality of gateways between the packet switched network and circuit switched network that match the predefined call service criteria;

sending a message to each of said plurality of gateways to obtain a trace route;

ranking the plurality of gateways based on the trace route of each of said plurality of gateways;

translating an identifier of a destination of the call from a listing of telephone numbers and associated internet protocol addresses in the directory service;

selecting a gateway with a highest ranking from said plurality of gateways; and

attempting to route the call over the selected gateway.

32. (Amended) The method of claim 31, further comprising [the step of]:

attempting to route the call over a next ranked gateway upon a failure of said [step of] attempting to route the call over the selected gateway.

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33. (Amended) The method of claim 31, wherein said [step of] ranking includes [the following steps]:

ranking highest any of said plurality of gateways that are accessible without traveling through any intervening router;

ranking all of said plurality of gateways that are accessible without traveling through any intervening router in order of lowest latency, if more than one of said plurality of gateways are accessible without traveling through any intervening router; and

ranking lowest any remaining gateways of said plurality of gateways.

34. (Amended) The method of claim 33, wherein said [step of] ranking lowest any remaining gateways further includes:

ranking any remaining gateways of said plurality of gateways in order of lowest latency.

35. (Amended) A hybrid network[, comprising:] that includes

a circuit switched [communication] communications network[:] and

a packet transmission network coupled to the circuit switched communications network[:], the hybrid network comprising:

a directory service;

a plurality of gateways connecting the circuit switched communication network and the packet network; and

a call router coupled to the circuit switched communications network with logic that transmits a query including a type of call service to the directory service to [obtain] identify a

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plurality of gateways between the packet [switched] transmission network and the circuit switched communications network that match [the] predefined call service criteria, sends a message to each of said plurality of gateways to obtain a trace route, ranks the plurality of gateways based on the trace route of each of said plurality of gateways, translates an identifier of a destination of the call from a listing of telephone numbers and associated internet protocol addresses in the directory service, selects a gateway with a highest ranking from said plurality of gateways, and attempts to route the call over the selected gateway.

40. (Amended) The method of claim 31, further comprising: [wherein] matching the predefined call service by [comprises] accessing a gateway registration scheme.

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